

PATENT

Atty. Dkt. No. ATT-105AUS (ATT/2002-0450)

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method of query pattern matching, comprising:
 - (a) generating a list of potential ancestors and a list of potential descendants;
 - (b) sorting the list of potential ancestors and the list of potential descendants in order of a first attribute in a database;
 - (c) skipping over unmatchable nodes in the list of potential descendants;
 - (d) determining whether a second attribute of a current node in the potential descendant list is less than a second attribute of a current node in the potential ancestor list;
 - (e) determining, based upon a result from (d), whether a first attribute of the current node of the potential ancestor list is less than a first attribute of the current node of the potential descendant list, a second attribute of the current node of the potential descendant list is less than a second attribute of the current node of the potential ancestor list, and a level number of the current node of the potential descendant list is equal to a level number plus one of the current node of the potential ancestor list; and
 - (f) appending to an output join list, based upon a result from (e), a node pair comprising the current node of the potential ancestor list and the current node of the potential descendant list.
2. (Original) The method according to claim 1, wherein the first attribute corresponds to a start position.
3. (Original) The method according to claim 1, wherein the second attribute corresponds to an end position.
4. (Original) The method according to claim 1, further including matching the query pattern against an XML database.

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5. (Original) The method according to claim 1, further including sorting the output join list in ancestor/parent order.

6. (Original) A method of query pattern matching, comprising:

- (a) generating a list of potential ancestors and a list of potential descendants;
- (b) sorting the list of potential ancestors and the list of potential descendants in order of a start position attribute in a database;
- (c) skipping over unmatchable nodes in the list of potential ancestors;
- (d) determining whether a start position of a current node in the potential ancestor list is less than a start position of a current node in the potential descendant list;
- (e) determining, based upon a result from (d), whether a start position of the current node of the potential ancestor list is less than a start position of the current node of the list of potential descendants, an end position of the current node of the potential descendant list is less than an end position of the current node of the potential ancestor list, and a level number of the current node of the potential descendant list is equal to a level number plus one of the current node of the potential ancestor list; and
- (f) appending to an output join list, based upon a result from (e), a node pair comprising the current node of the potential ancestor list and the current node of the potential descendant list.

7. (Original) The method according to claim 6, further including matching the query pattern in an XML document.

8. (Original) The method according to claim 6, further including sorting the output join list in descendant/child order.

9. – 19 (Canceled.)